



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,500	11/24/2000	Ron Dembo	11483-80	2505
1059	7590	06/28/2005	EXAMINER COLBERT, ELLA	
BERESKIN AND PARR 40 KING STREET WEST BOX 401 TORONTO, ON M5H 3Y2 CANADA			ART UNIT 3624	PAPER NUMBER

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/718,500

Applicant(s)

DEMBO ET AL.

Examiner

Ella Colbert

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 46-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 46-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 46-67 are pending. Claim 46, 55, and 64 have been amended in this communication filed 04/08/05 entered as Response After Non-Final Action.
2. The Applicant's amendment to the claims has not overcome the 35 USC 101 rejection. The 35 USC 101 rejection still stands as set forth here below.

#### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ at 193, 197 (1980).

4. Claims 46-67 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the claimed subject matter is directed to a "practical application"; or
- (2) whether the invention produces "a useful, concrete and tangible result.", that is, whether the claimed subject matter is applied in a practical manner to produce a useful result. "[C]ertain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., 'a useful, concrete and tangible result.' (*State Street*, 149 F.3d 1373, 47 USPQd at 1600-01 (citing *Alppat*, 33 F.3d 1544, 31 USPQ2d at 1557)).

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract ideas, law of nature, natural phenomena) that do not apply, involve, use, or advance technological arts fail to

Art Unit: 3624

promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

(A) In the present case, claims 46-67 recite an abstract idea only. The recited method and steps of the claim merely, a) computing a mark-to-future value, the mark-to-value for a portfolio being calculated from mark-to-values, and the mark-to-value being for an instrument that is a simulated expected value for the instrument; b) disaggregating the portfolio, the upside value being the expected value, the downside value being the expected value; c) determining an efficient portfolio from the plurality of portfolios, each efficient portfolio being a portfolio which the upside value is maximized with the downside value, and providing a utility function do not apply, involve, use, or advance the technological arts since all of the recited method steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to determine an optimal portfolio from a plurality of portfolios. The claims do not have a computer performing the method in the preamble or a user performing a computation at the computer or selecting at the computer a computation for a mark-to-future value.

In addition, for a claimed invention to be statutory, it must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces a method computing a mark-to-future value (i.e., repeatable) used for a plurality of portfolios (i.e., useful and tangible). Although the recited process produces a useful,

Art Unit: 3624

concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 46-67 are deemed to be directed to non-statutory subject matter because they are simply performing a mathematical computation which can be performed by using a pencil and paper.

With respect to the rejection under 35 U.S.C § 101, the Examiner asserts that the claimed invention does not fall within the technological arts because no form of technology is disclosed or claimed.

The method claims as presented do not claim a technological basis in the body of the claim. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore non-statutory under 35 USC 101. In contrast, a method claim that includes in the body of the claim at least one structural/functional interrelationship which can only be computer implemented is considered to have a technological basis [See Ex parte Bowman, 61 USPQ2d 1669, 1671 (Bd. App. & Inter. 2001) –used only for content and reasoning since not precedential].

### ***Response to Arguments***

5. Applicant's arguments filed 04/08/05 have been fully considered but they are not persuasive.

Issue no. 1: Applicant argues: the Examiner notes that the claims, in their current form, do not recite a computer performing the method in the preamble is not persuasive. Response: The statement made is as follows: the claims do not have a computer performing the method in the preamble or a user performing a computation at

Art Unit: 3624

the computer or selecting at the computer a computation for a mark-to-future value.

Applicant has interpreted this to mean that a computer in the preamble performing the method steps overcomes the 35 USC 101 rejection which is incorrect. Applicant needs to have a user performing a computation at the computer or selecting at the computer a computation for a mark-to-future value to overcome the 35 USC 101 rejection. The "computing a mark-to-future value for a portfolio" and the steps that follow can be performed with a pencil and paper or in the mind of an individual.

### **Inquiries**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday-Thursday, 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 571-272-6747. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Art Unit: 3624

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



E. Colbert

June 22, 2005